Scottish Government
Riaghaltas na h-Alba

Chief Medical Officer's Short Life Working Group on Donating Medical Equipment Report

April 2023

KidsOR
surgery for children

Contents

Executive summary 3
Summary of findings 4
Recommendations 4
Introduction 6
Principles 6
Scope and perceived need for this review 7
Methodology 8
Literature review of best practice for medical equipment donations 9
Situation 9
Background 9
WHO's Four Core Principles: 10
Conclusion 12
Research Methods and Results 13
Survey 1: Recipient hospitals 13
Survey 2: Scottish Based Donors Survey 15
Short Life Working Group Recommendations 20
Appendix 1 10 Steps to Safe Medical Equipment Donations 23
Appendix 2 Membership and declarations 25
Appendix 3 References 26

Executive summary

The World Health Organisation (WHO) estimates that up to 70% of donated equipment is non-operational. This suggests that globally we are still not getting equipment donations right and this is leaving a deficit and a burden on the receiving country as well as wasting resources in terms of time, effort and potentially costs in donor countries.

In anticipation of how Scotland's many aid organisations and community groups with overseas connections might respond to a post-pandemic world, the Chief Medical Officer commissioned a review of the standards required for medical equipment donations to low- and middle-income countries.

The review took account of recent work to review the Scottish Government approach to International Development.

> "Scotland plays an important role in working with global development, whether at a national, university, charity or community group level. In particular, our healthcare expertise helps supporting care for patients around the world and I have asked a small working group to review guidelines for donating medical equipment to low-resource countries to make sure we are at the forefront of best practice."
>
> Professor Sir Gregor Smith, Chief Medical Officer

A short life working group chaired by David Cunningham CEO of Kids Operating Room, was established to take the review forward.

This report was commissioned to review the guidance on donated medical equipment which is often high risk due to its complexity. Medical equipment is defined[1] as a capital asset and usually requires professional installation, calibration,

[1] Definition from the WHO Medical device technical series, page 14
Human resources for medical devices, the role of biomedical engineers (who.int)

maintenance, user training and decommissioning, which are activities usually managed by clinical engineers. The working group are conscious that many other types of equipment are donated including consumables, therapeutic and rehabilitation equipment that this report could not cover. However the working group considered the underlying philosophy and considerations are applicable to other types of donated equipment such as those mentioned above.

This reports sets out the findings of the review and recommendations for further work.

Summary of findings

Throughout this review the working group has come to recognise that donated medical equipment is often at the heart of patient care in many hospitals across low- and middle-income countries. Our review found that there is a wealth of good advice available, but the advice is frequently not easily accessible, both in terms of finding it and then in terms of consuming it, especially for smaller organisations. We also identified that although there are clearly several organisations operating at the highest standard, our research strongly suggests that current best practice is not universally deployed. A number of particular areas for practice improvement were identified including communication between donor and recipient, expert biomedical engineering advice and support, evaluation and feedback – these are detailed in the report.

Recommendations

The following lists the recommendations of the working group –

1. There is no requirement for additional new guidance as there is sufficient existing authoritative guidance to allow the safe donation of medical equipment currently available.

2. There should be a new high-level framework written to take donors through the key steps of making a donation. Rather than duplicating the existing guidance, this

document will signpost available guidance and make it easier for donors to assess whether to proceed with the donation, or importantly whether to exit the process as needed. The working group has developed a 10 step framework to guide the donation journey and signpost key guidance. This was tested at focus groups in early 2022 and feedback taken into account in the version that accompanies this report.

3. Opportunities for collaboration should be explored with organisations dedicated to the maintenance of high-quality guidance to develop an education and training offer for Scottish stakeholders involved with donations.

Introduction

Safely donating medical equipment can save lives and give health professionals throughout low- and middle-income countries the tools they need to deliver quality care. However, the reality in most low-resource setting hospitals is a legacy of poorly considered donations left unused throughout the wards or rusting in ‘equipment graveyards’ in hospital grounds.

Donating medical equipment directly involves the donor in the patient’s care and must therefore be done correctly. There should be no short cuts taken in the donation of medical equipment.

This working group was established to answer some core questions. Firstly, was there sufficient and up-to-date guidance available for making donations of medical equipment to anyone considering a donation? If not, should new guidance be created to support any donor to maximise the impact of their donation? Then, if there was sufficient guidance, was it easy to find and navigate? Again, if not, can anything be done to help guide donors through the process of making a safe donation.

Principles

The International Development principles of the Scottish Government also require the donation of such important equipment to meet the highest standards and have helped guide the work of this review. The principles are:

1. Partner country led development
2. Equality
3. Amplify global south voices
4. Inclusion and diversity
5. Collaboration and partnerships
6. Innovative, adapting and sustainable
7. Embrace technology
8. Accountable, transparent and safe.

Scope and perceived need for this review

As the review got underway, the working group considered the conditions likely arising to lead to a donation and what key questions the potential donor should be asking. Unfortunately, the evidence suggests that a large amount of medical equipment donations do not currently meet the existing criteria. Indeed, it is estimated that less than 30% of all donated medical equipment is put into service in the recipient institution.

A need to help potential donors to fully understand the scale of the task they are engaging in was recognised. The following infographic helps identify what the donor likely expects to be needed and what is actually needed.

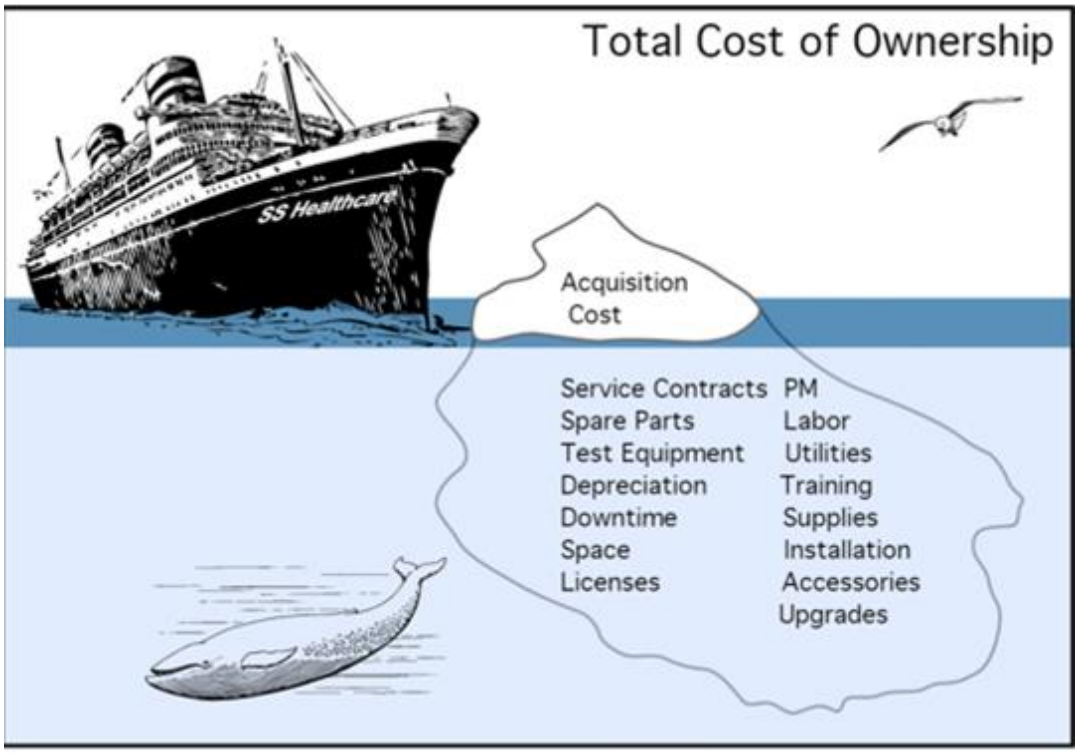

Image 1. Reproduced from the THET Making it Work guidelines.

The list shown in this image does not include consideration of end-of-life for the donation and safe, affordable disposal, vital for climate sustainability.

Methodology

The working group agreed to carry out a review of existing literature and conduct new research into current practice before deciding on whether to recommend completely new guidance or whether an alternative support system, if needed, could be developed.

The research involved two surveys: the first survey was sent to 22 hospitals in low- or middle-income countries as recipients who were selected based on their previous engagement with group members. The survey was sent to hospitals mainly in Africa and Latin America in English and French.

The second survey was for those with experience of donating medical equipment. The survey was promoted on social media and through a press release from the Scottish Government. It was also sent directly to members of the Scottish International Development Alliance with an interest in this issue.

Literature review of best practice for medical equipment donations

Situation

Scotland has a wide network of public and voluntary sector organisations who have been involved in the donation of equipment to partners in low- and middle-income countries for many years, often as part of long standing health partnerships.

More recently, as a result of awareness of the impacts of COVID-19 across the world, particularly in low-resource settings, and recent international humanitarian causes such as the crisis in Ukraine, a number of new actors, including from across civil society, have become involved in the collection and donation of goods and equipment.

The Scottish Government Ready Scotland website provides advice on supporting humanitarian causes, including donating and managing goods. However given the particular risks to patient safety that the donation of medical equipment raises, the Chief Medical Officer for Scotland commissioned a review of the current available global guidelines on these type of donations to identify areas of good and avoidable practice to help to guide a sustainable ethical donation system for medical equipment from Scotland.

Background

The World Health Organisation (WHO) estimates that up to 70% of donated equipment is non-operational. This suggests that globally we are still not getting equipment donations right and this is leaving a deficit and a burden on the receiving country as well as wasting resources in the donor country in time, effort and cost of arrangements, as well as potentially damaging relationships between partners. There is a need for good quality donations, done in a considered and collaborative way. We have reviewed the current available global guidelines on medical equipment donations and used these to guide a sustainable ethical donation system for medical equipment from Scotland.

Assessment

The main guidelines reviewed included:

- Making It Work, THET 2013 (Tropical Health and Education Trust)
- Guidelines for Quality Medical Product Donations 2021 – PQMD 2021 (Partnerships for Quality Medical Donations
- Medical device donations: considerations for solicitation and provision - WHO Medical device technical series, WHO 2011 (World Health Organization)
- Guidelines For Health Care Equipment Donations - WHO 2000 (World Health Organization WHO | World Health Organization).
- Managing the Medical Equipment Lifecycle, THET 2015 (Tropical Health and Education Trust

There were common themes throughout the guidelines highlighting a united front on what is seen as good practice. The first consideration is that all donations should be request driven from the receiving partner country or organisation. WHO noted that problems with donations often come from a lack of good communication between the donor and recipient and when the donor does not fully consider all of the challenges of donating at the offset. When WHO published its 'Guidelines for Health Care Equipment Donations' in 2000 they described four core principles underlying their guidance and these are still very much relevant today.

WHO's Four Core Principles:

1. A health care equipment donation should benefit the recipient to the maximum extent possible.
2. A donation should be given with due respect for the wishes and authority of the recipient, and in conformity with existing government policies and administrative arrangements of the receiving country.
3. There should be no double standard in quality: if the quality of an item is unacceptable in the donor country, it is also unacceptable as a donation.

4. There should be effective communication between the donor and the recipient, with all donations resulting from a need expressed by the recipient. Donations (solicited) should never be sent unannounced.

Once communication is established with the receiving partner the next consideration is whether a site visit is required; this is generally considered good practice and this can ensure the donor has considered the partners infrastructure for receiving the donations, including technical information about electricity and connections as well as transport links, customs and local maintenance expertise. A site visit and a deep understanding of the system in which the equipment will be used helps to support the vital communication between partners.

Given the current climate crisis and the different scales of organisations making donations a site visit will not always be the right thing to do. It may be of higher importance to engage with a technical expert at the receiving partner site who can advise on these aspects of the donation from their side and engage a clinical/ biomedical engineer on the donation side to capture this information.

If a donor is unable to undertake this kind of preparation then consideration of engaging a distributing partner who can demonstrate this knowledge and expertise would be essential.

If expert advice and support is not available to support the donation then consideration should be to given to not taking the donation forward or considering other forms of support which are beyond the remit of this working group.

As well as recognising there should be no double standard in quality of the medical equipment it is suggested that careful consideration be given to used vs. refurbished vs. new equipment when donating; they all have pros and cons for both the donor and the receiving partner and they should be considered by both groups and the receiving partner should have the final say in accepting a donation or not.

No equipment whatever the age should ever be shipped without confirmation that it is fully functional. Whatever the age of the equipment being donated it should always include manuals, service manuals (both in a language understood by the partner country), accessories, consumables, reagents, warranties and complaint processes and spare parts. No expired consumables should ever be shipped and if it is expected that there will be no availability for spare parts or technical assistance within the next two years then it should not be donated.

Where there are local markets for equipment or supplies these should be considered and if the decision is for new equipment to be bought then consideration of doing it through these established local channels takes away the need for transportation, and supports the local economy and local expertise.

Very importantly for any donations there should be an agreed plan for disposal of equipment so as not to leave partner countries with the cost of this – both monetary and environmental. Continuing the good practice of open communication between partners, feedback and evaluation of the donation process and the usefulness of the donation should be sought from the receiving partner.

Conclusion

A 2019 review looking at compliance of the WHO guidance for donating medical equipment found that the majority of donations reviewed had not fully complied with the guidelines. The working group considered the reasons behind this and identified the main barrier being that the guidance is not all in one place and is not always easy to find. To ensure all donations do meet the required standards, there appears to be a real need for a further, easy to follow signposting exercise to help donors achieve and maintain the highest standards of medical equipment donation. Given the burden unusable donations have on the receiving partner, if a group looking to donate find that they are unable to follow guidance, then they should reconsider progressing the donation and look at other forms of support. In many cases, not donating medical equipment will be the right thing to do if it cannot be done properly.

Research Methods and Results

Two surveys were carried out in the summer of 2021 to help clarify the need for the review and the current levels of adherence to existing guidance. The first of these surveys focused on healthcare providers in countries that had linked to one of the organisations supported by the group members who were recipients of medical equipment donations. This survey was available in English and French. The second survey focused on organisations and people based within Scotland who were active in donating medical equipment to healthcare providers in low- and middle-income countries.

Both surveys were promoted online, and they were sent to known organisations, clinicians or hospitals and members of the Scottish International Development Alliance. Everyone who received the survey was encouraged to share it within their networks. Reminders were sent.

In addition to this, three in-depth interviews were carried out. These were with one clinician in Rwanda, one in Malawi and one in Scotland, who had successfully delivered medical equipment to a project in Malawi, to help shape the surveys. Meetings also took place with Partners in Quality Medical Donations to understand their work and their annual review of their guidance.

A full set of results from both surveys is available on request. The numbers are small although indicative of certain traits. The following highlights were drawn from the results.

Survey 1: Recipient hospitals

16 respondents to the first survey came from 12 countries. 11 of them were in Africa: Malawi, Zambia, Zimbabwe, Nigeria, Sierra Leone, Uganda, Kenya, Madagascar, Burkina Faso, The Gambia and Democratic Republic of the Congo. 1 of the respondent countries was in Latin America: Ecuador.

The findings of the survey are shown below:

Approximately 90% of respondents (14) confirmed they had received medical donations from an overseas donor. Encouragingly, a corresponding number (14) confirmed that the donors had engaged with the hospital in the process of making the donation.

However, despite engagement with the donor around the donation, 75% (12) of the respondents had not received any handover training as part of the donation. This situation is further confounded with 25% of recipients (4) confirming they had received donations of medical equipment without manuals in their language, making safe and full use of the donation challenging.

Of those who had received donations, nearly 70% (11) reported that the donation did not come with a warranty or maintenance programme, which leaves the hospital open to additional fees or, more likely, leads to the equipment quickly becoming broken and unusable.

Furthermore, despite evidence of donor engagement, 12% of donations (2) were found to be unsuitable for use in the recipient hospital. In these cases, the energy put into making the donation is often fruitless and the recipient hospital is left with equipment they have no use for. One hospital reported receiving a donation of medical equipment that had the wrong power consumption (e.g. 240v given for use in a 110v country). In this case the hospital were able to use the equipment but had to incur additional expenditure purchasing power convertors.

When it came to the provision of consumables and necessary spare parts to use the donated equipment, 75% (12) of the respondents confirmed they had not received all the necessary provisions (50% reported receiving some and 25% reported receiving none).

Respondents' comments included:

> "Sometimes items donated were of an age that availability of consumables and spares was limited."

> “A diathermy was provided with very few pads that lasted a few weeks.”
> “Sometimes we get equipment and all the parts not there. For example, missing cables.”

With 75% of recipient hospitals reporting donations of this nature, it is clear that the guidelines on donating medical equipment are not currently being followed consistently; even when there is engagement with the hospital.

Finally, when participants were asked directly if they had received any medical equipment that they weren’t able to use, 80% (13) confirmed that they had.

Respondents’ comments included:

> “We have had many items of old, obsolete and incomplete equipment.”
> “Broken equipment that didn’t work in the donor country, wrong power connection, missing parts.”

With such a high rate of participants confirming that they had received donations in the past that were never used, the need to provide clear support to the donating organisations to maximise their impact appears to be clear.

Survey 2: Scottish Based Donors Survey

The survey was shared widely within Scotland including to all members of the Scottish International Development Alliance through the contact email address listed on the Alliance membership page. 19 respondents replied to the survey.

The countries donated to by those responding were: Peru, The Philippines, Afghanistan, Greece, Haiti, Tanzania, Kenya, Malawi, Sierra Leone, Liberia, Madagascar, Guinea, Nigeria, Zambia, Rwanda, Democratic Republic of Congo, Senegal and one respondent who confirmed that ‘key partners distribute to 65+ countries’.

Those who were not actively involved in donating medical equipment donations cited reasons including:

> "Whilst I have access to equipment no longer required, shipping costs are prohibitive."
> "Just about to try."

Of those who were actively donating (14 respondents), 80% of responses (11) confirmed that they responded to requests for help. 14% (2) of respondents led the process by offering donations. However, in commenting most respondents alluded to a mixture of requests and offers, as summarised by the comment:

> "Donations have been made in both ways. First, as a response to a request as part of a project, we have sourced equipment, mainly through donations and had it sent out. Secondly, a piece of equipment which has been offered to us by a hospital/clinic/individual. We then contact our in-country partners to see if this would be useful, what maintenance support there is locally etc."

When it came to discussing the recipient hospital's needs, 80% (11) of respondents confirmed they did discuss these in advance of a donation, but this left 20% (3) of respondents who did not. One organisation confirmed that their role was to facilitate the donations on behalf of others, but this still leaves 14% (2) of the responders sending medical equipment donations without consultation with the recipient hospital.

When it comes to handover training, the responses were evenly split with 50% (7) providing training and 50% (7) not. Most of the comments were by those who appear to have provided training or who assessed that the donation was sufficiently well known to the recipient team that training was not necessary.

Respondents were then asked about the provision of manuals in the local language with only 20% (3) of the respondents saying this was done. 80% (11) of the respondents did not provide manuals in the local language either because they weren't deemed necessary ("not relevant for the equipment donated"), or because they were provided only in English ("Manuals are provided are only in English"), or because they weren't available ("country x speaks English – any manuals (and often none) are in English").

On the provision of a warranty or maintenance programme for any donated medical equipment, 86% (12) of respondents did not provide this. The comments in this section were revealing on where some of the recipients felt the boundary of responsibility lay:

> "This is the responsibility of the recipient."
> "We gave some help and advice but essentially when machines broke, they were not repairable due to lack of access to parts and bio engineering know how."
> "Not thought worthwhile or relevant. Would be worth considering for expensive multi-use kit."

It should be stressed that some responses were exemplary. For example, one commented that:

> "We had trained local BioMeds to look after the equipment and provided them with test equipment and tools. Also providing ongoing support via video link and email."

When asked if the equipment donated was suitable to the hospital (e.g gasses, water and power) 93% (13) of respondents confirmed that it was. However, 1 respondent confirmed that their donation had not been suitable for the hospital. Respondents noted they had tried to ensure suitability.

On the question of providing necessary consumables and spare parts, only 36% (5) of respondents confirmed that these were provided. 45% provided some of them and

20% did not provide any consumables. Respondents' comments broadly aligned with the views given on the topic of warranties. Comments included:

> "We are a small administrative team of 6 staff, not a health facility. It would be counter-productive for us to spend charitable funds on procuring consumables and spare parts to accompany second-hand equipment not chosen by the recipient facility and for whose shipping we don't pay – we generally accept only equipment which we can hand-carry."
> "We send what we are given!"
> "If available."

The survey probed whether respondents had sent any medical equipment that they knew hadn't been used. 28% (4) participants confirmed that this had happened. The comments highlighted why this might be:

> "At the beginning of country x project (2010) sent container of equipment including level 1 infuser never used."
> "Some items are beyond the current needs of the local hospitals. The local staff is not highly trained and the budget is low, so there are many things which they do not diagnose and cannot treat."

When asked about whether a pre-shipment customs clearance process has been undertaken, 36% (5) of respondents confirmed that it had. 57% (8) had not arranged this with 7% reporting that it wasn't needed. Comments on why certain actions had been taken with regards to customs included:

> "We took the equipment in person."
> "We work with partners who manage the customs process."
> "We purchase most of the equipment in country x. Most is available in country and the cost of shipping is prohibitive."

This led on to a question about whether participants had experienced any problems with the logistics of the shipping and clearing equipment through customs. 36% (5)

of respondents confirmed they had problems. Some respondents noted they did not have the arrangements to clear customs on behalf of recipients.

43% (6) had not experienced problems and 20% (3) of respondents stated that customs clearance was not required.

When considering why problems might have been encountered, comments included:

> "Even with prior planning, customs very rarely goes smoothly, with long delays in processing any donation from the UK."
> "Corruption and inefficiencies within local Customs teams."
> "Takes a long time from memory nearly a year to get operating microscope to Town Y."

Finally, participants were asked whether they would find it useful to have access to a guide showing all the steps that should be taken to safely donate medical equipment for maximum impact. 75% of respondents confirmed it would, 25% did not feel this would be helpful.

Short Life Working Group Recommendations

The working group performed a detailed review of the feedback from the surveys and interviews, along with a literature review. The survey results showed that there are a number of organisations delivering meaningful donations of medical equipment in a way that is aligned with the principles set out at the start of this report and in a way that genuinely enhances patient care.

However, there are also organisations operating in a way detrimental to their good intentions, and not leading to the improved healthcare expected with the recipient country. From the limited evidence of this review, the positive difference to patient outcomes may be overshadowed by the burden of obsolete medical equipment.

The working group agreed the need for clarity of guidance given the disparity in practice.

This review made clear that the existing guidance is sufficient to allow anyone to make a safe and meaningful donation of medical equipment. While the guidance is not always in one place, not always up-to-date and sometimes difficult to consume due to the size of the documents; it is, nonetheless, accurate and sufficient to enable safe donations to be made.

Therefore, adding another set of guidance would be an unnecessary exercise, and risk adding more confusion to anyone wishing to donate.

The working group therefore do not recommend the production of new guidance.

Recommendation 1:
There should not be new guidance written, as there is sufficient existing authoritative guidance to allow the safe donation of medical equipment.

The question that followed is why some organisations do not follow the guidance? The answer to this is believed to be a combination of factors. Namely a lack of awareness, a lack of understanding of the multiple aspects of donating medical

equipment, difficulties in processing and implementing the detailed existing guidance, and/or a lack of capacity.

The need to help guide potential donors through this process was therefore explored and considered as an outcome from the review. The working group believe that the provision of additional support to any organisation or individual wishing to make a donation of medical equipment, by way of an accessible 'step-by-step' framework that takes the donor through the donation journey, would add value to current guidance. Such a framework can signpost to existing guidance without needing to re-write or update it. Importantly, it can also give the potential donor clear consideration points regarding the donation process. This may benefit any donor who embarks on a donation before realising the scale of the process and is unable to meet the essential elements of an ethical and safe donation.

The working group therefore recommend the production of a simple guide to making a donation that takes donors through the different steps of the process without re-writing the existing guidance. The framework was tested in three focus groups. A revised text version is available in Appendix 1 with the infographic version available as a separate document.

Recommendation 2:
There should be a new high-level guide written to take donors through the key steps of making a donation, helping them find key guidance and also making it easy to exit the process as needed.

The working group considered how to ensure that best practice is always deployed and how the high-level guide would help achieve this. There are already organisations dedicated to the maintenance of high-quality guidance for medical donations who offer this information for free to potential donors including the World Health Organisation, Scottish Malawi Partnership[2] and the Tropical Health and Education Trust.

[2] Best practice: shipping goods to Malawi | Scotland Malawi Partnership (scotland-malawipartnership.org)

In addition there is a training program in development by the US based charity 'Partners in Quality Medical Donations' (PQMD). The group consider that this short 'Medical Donations 101' course should be explored and any donating organisation encouraged to complete.

The working group therefore recommend that further work be done to identify and assess the quality of the PQMD course, or any other relevant course should one become available, and to consider whether completion of this should be a prerequisite step in making a donation of medical equipment. An International Development partner such as the Scottish International Development Alliance could be engaged to explore opportunities for facilitating such a recommendation.

Recommendation 3:
Opportunities for collaboration should be explored with organisations dedicated to the maintenance of high-quality guidance to develop an education & training offer for Scottish stakeholders involved with donations dissemination.

Finally, the working group accept that work and acceptable standards in this field do develop over time and recommend a review of this guidance is carried out every three years to ensure it remains up to date.

Appendix 1 10 Steps to Safe Medical Equipment Donations

Creating an infographic that could help take any potential donors through the ten key steps of making a donation was a recommendation of the working group. The guide is in a separate document with the text description below.

We propose the steps along the journey to making a donation of medical equipment should be as follows. Each step can include more than one action and the process should not be considered entirely sequential; donors of medical equipment should review all ten steps when they receive a request.

1. **Your partner has identified a need and made a donation request to you** Communicate with the hospital/person making the request to fully understand what they want. Undertake the relevant training and read the available guidance(THET Making it Work, WHO Guidelines, PQMD and Scotland Malawi donation guidance).

2. **Liaise with your partner, read 'Managing the Lifecycle of Medical Equipment'** and talk to the local technical expert in the hospital/setting to ensure they understand what has been agreed to be sent and that they are able to maintain it.

3. **Stop and reflect**
   Are you able to fulfil the requirements for an effective, ethical, sustainable, and safe donation as set out in the best practice guidance referred to in previous steps? Are there any elements you are unable to fulfil? If there are then you should stop the donation process. Donating medical equipment in an unsafe way can do more harm than good.

4. **Is your donation new or second- hand equipment?** Do you have all the necessary manuals and an agreed plan for consumables and maintenance with the hospital?

5. **Are the necessary plans in place** for installation, maintenance, accessories & spare parts and decommissioning? If this has not been possible then you cannot be certain the equipment will be safe for use once it arrives. Until this is resolved you should stop the process of making a donation.

6. **Plan for logistics of transportation**, ensuring you have all the documents needed for customs clearance. If this has not been possible then you cannot be certain that the donation will arrive safely. You should stop until this is fully resolved.

7. **Discuss and agree an end-of-life plan** for the donation so it will be safely disposed of.

8. **Seek final confirmation that the donation is still required** and confirm that everything has been done.

9. **Make the donation.**

10. **Follow up, feed back and evaluate,** through an agreed process as partners.

Appendix 2 Membership and declarations

A short life working group convened in March 2021 to take forward a review of best practice in relation to the donation of medical equipment to low-and middle-income countries and provide advice to the Chief Medical Officer for Scotland on action to address the various risks and difficulties associated with such donations.

The members of the short life working group were led by David Cunningham, Chief Executive of KidsOR and supported by a Scottish Clinical Leadership Fellow (Fiona Rutherford) who worked part-time in the Scottish Government Health & Social Care Directorates (SGHSC). The secretariat was provided by NHS public health embedded in the SGHSC, upheld by civil servants from the Scottish Global Health Coordination Unit and the International Development Division. The work benefited from additional co-opted members from NHS Scotland clinical engineering and medical physics professions.

Additional thanks are due to the designer of the initial version of the framework (Sarah McHutchison from KidsOR) and the focus group leads and participants from the Scotland's International Development Alliance (SIDA) workshops.

Members declared their interests which included training and fundraising. A copy of the members' declarations of interests are available on request.

Appendix 3 References

Medical device donations: considerations for solicitation and provision - WHO Medical device technical series. Geneva, World Health Organization, 2011.

Making it work: a toolkit for medical equipment donations to low-resource settings. London, THET, 2013.

Guidelines for Quality Medical Product Donations. The partnership for quality medical donations (PQMD), 2021.

Donation Of Medicines, Medical Devices And IVDs. Pretoria, South African Health Products Regulatory Authority (SAHPRA), 2020.

Medical equipment donation in low-resource settings: a review of the literature and guidelines for surgery and anaesthesia in low-income and middle-income countries. Marks IH, Thomas H, Bakhet M, et al. BMJ Global Health 2019;4:e001785.

Medical donations are not always free: an assessment of compliance of medicine and medical device donations with World Health Organization guidelines (2009–2017). McDonald S, Fabbri A, Parker L, Williams J, Bero L. International Health, Volume 11, Issue 5, September 2019, Pages 379–402.

Equipment donation to developing countries. Gatrad, A.R., Gatrad, S. and Gatrad, A. Anaesthesia, 62: 90-95, December 2007.

Managing the Lifecycle of Medical Equipment. London, THET, 2015

SHTN 00-04 Guidance on Management of Medical Devices and Equipment in Scotland's Health and Social Care Services. NHS National Services Scotland, June 2021

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